

IN THE DRAWINGS

Please consider and approve the accompanying corrected copy of Fig. 1, and the accompanying new Fig. 2.

REMARKS

This application pertains to a novel method and apparatus for injecting gasification medium into particle-laden gasification spaces of fixed-bed, fluidized-bed or entrained-bed gasifiers by one-component nozzles.

Claims 1-8 and 10 are pending; claim 9 being canceled by this amendment. The limitations of claim 9 have been added to claim 8.

The drawings have been objected to as not showing every feature of the invention specified in the claims. In reading the objection, Applicants understand it to be directed to the need to show the deepest GM flow thread (13) horizontally inclined (Fig. 1 already shows it downwardly inclined), and the need to show the diameter at the beginning of the acceleration portion (7) as equal to the diameter of the supply portion of the nozzle (a greater diameter of the beginning of the acceleration portion 7 is already shown in Fig. 1). These elements are illustrated by the new Fig. 2, which the Examiner is respectfully requested to consider and approve. If the objection concerns any other elements, it is respectfully requested that the Examiner more particularly specify such elements.

Proposed Fig. 2 merely illustrates that which is fully disclosed in the specification, and does not introduce any new matter.

Fig. 1 is being corrected simply by adding a legend "Fig. 1" to it, since there will now be more than one drawing.

Applicants would be very grateful if the Examiner would review and approve the new and corrected drawing. Once receiving approval from the Examiner, Applicants will submit formal drawings to the Official Draftsperson.

The Abstract stands objected to because the Examiner sees it as including a list of reference numerals. The list of reference numerals are not part of the Abstract, however, and were present as a separate section, apart from the abstract. In view of the objection, this section has now been moved to the Brief description of the drawings, which would seem to be an appropriate place for it to be.

The objection to the Abstract should accordingly now be withdrawn.

Claims 1-10 stand rejected under 35 U.S.C. 112, second paragraph, as lacking antecedent basis for the recitation of "...the adjoining acceleration portion" in claim 1. Claim 1 has now been amended to provide such antecedent support, and the rejection should be withdrawn.

Claims 1, 2 and 6 stand rejected under 35 U.S.C. 102(b) as anticipated by Gernhardt et al (US 4,043,766).

The Gernhardt nozzle has a constant internal diameter from one end to the other, and does not have a separate acceleration portion where the medium passing through it is constantly accelerated. Note the beginning of the tube right at the identifying line

drawn from the notation "20d", and the dotted lines passing through the nozzle, indicating a constant internal diameter all the way through. In addition, there is nothing in Gernhardt that would suggest such an acceleration portion. Applicants' claims cannot therefore fairly be seen as anticipated by or obvious over the Gernhardt reference, and the rejection of claims 1, 2 and 6 under 35 U.S.C. 102(b) as anticipated by Gernhardt et al (US 4,043,766) should be withdrawn.

Claims 1, 8 and 10 stand rejected under 35 U.S.C. 102 (b) as anticipated by Dehn et al (US 5,335,608).

Dehn however discloses a furnace lance for atomizing a coal-water suspension, and has absolutely nothing to do with any method for injecting gasification medium into a particle laden gasification space of a gasifier. Dehn's device injects fuel into e.g. a furnace.

In this regard, it is respectfully pointed out that, at least in regard to claim 1, that such claim is directed to a method of injecting gasification medium into a gasifier; and Dehn has nothing to do with this.

With respect to claims 8 and 10, the Examiner will note that the limitations of claim 9, which was not included in this rejection, has been added to claims 8 and 10. Accordingly, claim 8 is now an independent form of original claim 9, and is free of the present rejection. Claim 10, in depending from claim 8, incorporates all the limitations thereof, and is therefore free of this rejection.

The rejection of claims 1, 8 and 10 under 35 U.S.C. 102 (b) as anticipated by Dehn et al (US 5,335,608) should therefore be withdrawn.

Claims 1 and 8-10 stand rejected under 35 U.S.C. 102 (b) as anticipated by Zinn (US 3,302,596). Zinn, however, like Dehn, is concerned with a combustion device, and neither teaches nor suggests anything at all about any method of injecting gasification medium into particle loaded gasification spaces. Zinn is concerned with the injection of fuel into e.g. a furnace. Zinn therefore cannot be seen as teaching or suggesting anything relevant to Applicants' claim 1.

With respect to claims 8-10, note that Zinn's nozzle is not a one-component GM nozzle, comprising a central nozzle and at least one concentric annular nozzle. Thus, Zinn's nozzle is different than and non-suggestive of the nozzle defined by Applicants' claims 8-10.

The rejection of claims 1 and 8-10 under 35 U.S.C. 102 (b) as anticipated by Zinn (US 3,302,596) should accordingly now be withdrawn.

Applicants note with appreciation that claims 3-5 and 7 would be allowable if amended into independent form. However, in view of the present amendments and remarks, it is believed that all of the pending claims are now in condition for allowance.

In view of the present amendments and remarks it is believed that